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The emergence of language consensus - Intensifying language interaction in information systems development

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INTERNAL MARKETS AS A SOURCING OPTION FOR THE DELIVERY OF IS SERVICES: IMPROVING OUTSOURCING AND INSOURCING

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Abstract

The delivery of IS services is very resource consuming in all organizations. In an era in which management optimization is one of the bases for competitive advantage, sourcing options must be judged carefully. Traditionally, the dilemma has been considered in terms of make (insourcing) or buy (outsourcing). But both of these options have shown a certain amount of problems. Although outsourcing has allowed firms to concentrate on their core competencies, it has also shown several issues that prove it is not a panacea. Insourcing, on the other hand, does not allow a great deal of flexibility and we also find that it is every time more frequent that firms do not want their amount of staff to grow. Between both options, the internal mechanism has arisen. Its use entitles the creation of an intermediate society between the organization and the market. This article shows two cases of organizations from different environments in which the sourcing process involved the creation of an intermediate organization to act as the described buffering mechanism. Both processes were related to the IS/ICT function, one in Spain and another one in Italy. The study of the two cases has helped us identify and confirm empirically a number of features achieved by this internal mechanism use.

Keywords: Internal markets, outsourcing, insourcing, IT function.

1 INTRODUCTION

In the last few years, we have seen the importance of information systems and information and communication technologies (hereafter IS/ICT) in organizations steadily increasing. This increase has entitled that organizations have had to deal with the way to deliver these services. Traditionally the alternatives to do this have been two poles of what is now considered to be a continuum but which for some time was considered to be just the two possible existing options: outsourcing (buy) and insourcing (make).

Outsourcing is the process by which external agents perform organization's activities while insourcing is the process in which the organization performs the functions in-house. We also refer to insourcing when a firm undertakes an outsourcing process and later decides that the services should be performed again by its own personnel and even in the case in which an organization examines the costs and possibilities of outsourcing but finally decides not to use this sourcing option (Hirscheim and Lacity, 2000).

As time has passed, both alternatives have been examined in detail in the IS/ICT sector by different authors, practical cases have been made available, and a certain amount of problems have been found in both of them.

On the one hand, outsourcing has been blamed for making organizations lose control over IS/ICT assets (King and Malhotra, 2000; Lee et al. 2003; Gupta and Gupta, 1992), lose flexibility (Lee et al. 2003; Gupta and Gupta, 1992), have to go trough the possibility of threats of opportunism from the supplier (King and Malhotra, 2000), lose IT expertise and corporate memory (King and Malhotra, 2000), lose of qualified personnel (Lee et al. 2003; Gupta and Gupta, 1992) and lose of competitive advantage in information management (Lee et al., 2003) as well as in the innovation capacity (Earl, 1996).

Moreover there are also problems derived from the complexity of breaking a contract in case of dissatisfaction (McFarlan and Nolan, 1995; Lacity et al. 1996), the use of not very qualified personnel by the contractor (Earl, 1996), the possibility of a misalignment between the outsourcing organization and the contractor (Lacity et al. 1996) and even an increment in costs when many organizations outsource as a way do cut down costs (Lacity et al. 1996).

On the other hand, insourcing means not achieving the main reasons that make organizations outsource. This is not been able to control costs, not being able to concentrate on the nuclear capacities of the organization and having a very low level of flexibility over workers.

As we can see, both outsourcing and insourcing of IS/ICT have major drawbacks. However, we must consider that these drawbacks will have a greater weight depending on how important IS/ICT are for the organization. This is, for organizations in which IS/ICT are just a commodity which must be dealt with, choosing the best combination possible of outsourcing and insourcing will probably be enough. Normally we will find that very small organizations completely outsource IS/ICT, an that as they grow they tend to start creating their own IS/ICT services; once they grow over a certain amount of employees (or the IS/ICT needs grow above a certain limit) they try to increase the proportion of outsourcing.

But, what happens when the firm considers IS/ICT to be a source of competitive advantage, a nuclear activity? Due to the problems with insourcing and outsourcing, these organizations have had to find other alternatives to overcome these problems. Between these alternatives we can mention internal markets, strategic alliances, business process outsourcing and selective sourcing. We now define these four alternatives.

- Strategic alliances. Two or more organizations jointly develop functions in the search of competitive advantages. For a strategic alliance to function and be successful over time, all the participating organizations must consider that they are obtaining value from the alliance; in other words, that a "win-win" situation occurs (King, 2001). There are three types of strategic alliances (Barney, 2002): non-equity alliances, equity alliances and joint ventures. Non-equity alliances are based on contractual relationships, so firms are all stakeholders, but not necessarily shareholders. In equity alliances and joint ventures an independent company is created.
- Internal markets. A company creates its own organization to undertake certain tasks or it allows one or more of its units to act autonomously and to transact with other units of the company. This is, strategic alliances and internal markets are similar mechanisms, just in the first it is two or more firms getting together to create an independent company, while in internal markets it is just one enterprise the one creating the new company.
- Business Process Outsourcing (hereafter BPO). BPO consists on handing over control of an IS/ICT based process (for example, human resources management or accounting) to another organization (Rouse and Corbitt, 2004). The firm thus eliminates the need for certain IS/ICT areas since the company who supplies the service will be responsible for the IS/ICT required to provide it.
- Selective sourcing. Selective sourcing consists in subcontracting just certain parts of a given organizational function while retaining others in-house (Lacity et al. 1996), this is, to find a mix between what is done outside the organization and what is done inside (King, 2000). It is specially used in the IS/ICT area, due to the complexity of the function and the number of tasks involved.

As we can now see, the two alternatives formerly mentioned in the article are just two points in a continuum (see Figure 1), that starts in insourcing, passes trough outsourcing and arrives to BPO. In this continuum, as we move from the starting point to the ending point we find less effort from the company in the management of IS/ICT but also, subsequently, less potential in the form of competitive advantages.

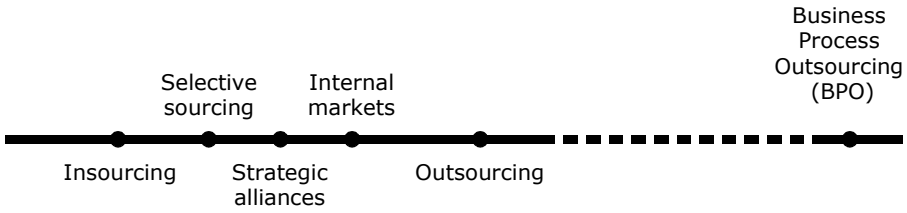

Figure 1. The source continuum

Sourcing alternatives have been widely explored in the literature, quite often in relation to IS/ICT. Probably the theoretical framework most widely used to explore sourcing alternatives, this is, the make-or-buy decisions has been transaction cost economics, derived from the original works of Coase (1937) and Williamson (1979). According to transaction costs, markets would always be used as the organizational form, but every time a market failure appears, a firm (i.e. a bureaucracy) is created as an answer to this failure (Ouchi, 1981). These failures could be due to issues such as bounded rationality, uncertainty, complexity, opportunism or small numbers.

Bounded rationality means that people try to behave rationally but, due to limited knowledge and imperfect cognitive capabilities, this rationality is limited (Greiner and Goodhue, 2005). This bounded rationality causes uncertainty since one side can never be sure how the other side is going to behave in a negotiation. Complexity is to be expected in any relation, but in the IS/ICT area it is increased due to the object of the relation, that are normally not easily to measure (i.e. it is very difficult to estimate

precisely how long installing a new operating system and migrating all email accounts can take). Small numbers appear when in a relation, and due to the typical evolution of tasks, the process of specialization leads to a point in which it is difficult to find an alternative supplier for a product or service. Opportunism is based on the idea of self-interest and increases even more the uncertainty.

But sometimes, in the presence of any of the above failures, moving from markets to bureaucracies is not the solution, and some other organizational forms are needed (Ouchi, 1981). This happens when tasks are "[…] highly unique, completely integrated, or ambiguous for other reasons […]" (Ouchi, 1981: 134). As we can see, these attributes are frequently applied to IS/ICT tasks, which gives us a hint that probably in this area, the decision between make (bureaucracy) or buy (market) has a much wider spectrum of possibilities that should be explored. Ouchi himself suggests the clan form: a group based in common values and beliefs, thus allowing minimization of goal incongruence and tolerating high levels of ambiguity in performance evaluation. Greiner and Goodhue (2005) explore open source communities as an intermediate option, these open source communities having some characteristics similar to the clans found by Ouchi. However, clans are not a mechanism easily found, since there are based more in perceptions and values of the individuals than on general parameters usually found in different environments.

Strategic alliances have also been explored frequently, in the IS/ICT sector and outside it. But there seems to be a certain lack in the literature of articles exploring the buffer mechanism that internal markets allow. In this article we are going to focus on this alternative, the internal market strategy, trying to answer the following research questions: what are the advantages and disadvantages of the internal market strategy? When and how should it be used? What issues have to be dealt with in the process?

In order to answer these questions, we have based our research on two practical cases developed in Spain and in Italy. Both these cases were related with the IS/ICT function. The one in Spain involved the use of this solution in a Public University as a way to outsource certain IS/ICT functions while retaining a good level of control over workers and over management of these functions. The one in Italy was that of a SME which decided to create a buffer company to manage the implementation project of an ERP System.

This article is organized as follows. First, we explore the internal market strategy. We then present the two cases that have been studied, followed by a section in which we show the research methodology that was used in each of the two cases. We also show other cases that we know about and that we expect to study in further detail in order to confirm better the results found. Then some common findings to both cases are shown. We believe many of these findings can be generalized to all internal market strategy cases. Last we discuss on the results, we highlight some limitations to the work done up to this point and we end with some conclusions which we hope can be used by managers facing sourcing alternatives.

2 INTERNAL MARKETS

As has already been defined, internal markets is a mechanism in which a company creates its own subsidiary firm to undertake certain tasks; it is also a term used when a unit from the mother company is separated from it and starts operating as an autonomous unit. Usually this new organization or the autonomous unit will provide services not only to the parent company but also to other companies in the market, thus guaranteeing a competitive pricing structure and an appropriate quality of service (King and Malhotra, 2000) since the subsidiary should be almost the same as any other external supplier (Dearden, 1987). In the following we are going to concentrate in the case in which there is a new company and it is not a unit that has been allowed to become independent.

This created company acts as a buffer organization between the mother organization and the market, thus allowing for "[…] increased responsiveness of internal suppliers, better quality with lower cost of internally-supplied services and products, elimination of fluff, de-bureaucratization, de-

monopolization, uniform measures for comparing the performance of various units, and greater opportunity for development of management skills […]" (King and Malhotra, 2000: 327). This is due to the created company being very close to the mother organization but, at the same time, being independent.

3 THE TWO CASES

3.1 Case 1 – Spanish Public University

The first case was that of a Spanish Public University that decided to create the buffer society as a way to outsource certain IS/ICT functions while retaining a good level of control over workers and over management of these functions. The university has roughly 20,000 students and a total budget for the management of IS/ICT of around 8 M€. It has 45 staff dedicated to IS/ICT management.

As the university faced the need to enlarge the number of staff dedicated to IS/ICT following the natural increase of IS/ICT services needed that has taken place in all organizations, it found that growing the internal structure was very difficult due to tight restrictions in Spanish Public Administrations[1]. Outsourcing was also considered but the geographical position of the university (the Canary Islands, more than 2,000 km. from Mainland Spain) and the specificity of tasks to outsource meant there was an important shortage of providers available.

Due to this, the decision to create a buffer organization was taken. This organization was created during the year 2005 and it started providing services in 2006. Its budget for 2007 was about 700,000 Euros with a number of staff of about 25. It provides help desk services as well as some application development services. The objective of the enterprise is to break-even at the end of each financial year.

Rough estimates showed that if the same tasks had been developed in-house the total cost would have been around 1 M€, due to higher salaries that public employees are entitle too. On the other hand, outsourcing would have also meant a figure close to the same 1 M€, since, as was stated previously, enterprise from Mainland Spain willing to provide the services would have charged that extra quantity in accountancy for their benefits and for the extra costs of having to operate a unit in a remote place. This shows that, very roughly, the internal market option has allowed for savings of about 30%. This is not absolutely true since certain overhead costs (creation of the enterprise, costs associated to the heads of IS/ICT in the university who are part of the Board of Directors of the newly created company, etc.) have not been considered.

3.2 Case 2 – Italian SME

The second case was an Italian SME (we will subsequently call it MainFirm) in the iron and steel sector that decided to create a buffer company (that will be called BufferFirm) in order to manage the implementation project of an ERP System. The company was created in 1996 and started providing consulting services immediately. The following year, the implementation project took place and the new firm started providing consulting and technical services as programming, customization and training. The turnover was 200,000 Euros the first year, 700,000 the second year, 1.5 million the third year and 2 million the fourth year. The firm ended its activity in 2001, once the rollout of the ERP was completed and it was stable.

In this case, the bases to create this firm came from the high level of outsourcing that was already being used and the reduced dimension of the IS/ICT department in the main firm. Due to this, the top

[1] In Spain, Public Universities have to follow the same rules that are applied to Public Administration in general.

management decided to create a new consultancy company which was owned by the firm (45% of the shares) and by four experts in business process reengineering, programming and project management (55% of the shares).

The new firm started analyzing the main business processes, in order to identify the critical aspects that had to be taken into account in the ERP selection phase. As result of the analysis, the adoption of a national ERP called Diapason was suggested. This ERP had been developed by a software vendor (which will be named SoftwareFirm) and the recommendation was made due to economic reasons and because Diapason was considered to be the reference in the industry in Italy.

The BufferFirm management decided that the implementation would be done through a gradual rollout per module and per site. This is, rather than buying an ERP implementation project (software and services), partnership was signed with the SoftwareFirm. According to the contract, BufferFirm would become a business partner of SoftwareFirm, which meant that BufferFirm's personnel were involved in some ERP implementation projects as observers. This would allow a group of consultants in BufferFirm to be able to understand how to run an ERP implementation project from both the technical and from the managerial points of view.

After six months BufferFirm became able to run implementation projects on SoftwareVendor's software. From that moment BufferFirm's personnel were involved in the MainFirm's project and in some other projects of SoftwareVendor in which "body rental" agreements were conducted.

3.3 Other cases

Apart from the two mentioned cases which have been studied in detail, the authors also know, and are in the process of studying, a number of cases in different environments which could help confirming the main results that have been found in both the above cases:

- Car dealer in Spain. This firm distributes the cars of one of the biggest worldwide carmakers. Initially they concentrated in just one region in Spain but over time they have developed in South America and Africa. Some time ago, they found the IS/ICT applications provided by the automaker were not enough for their management, so they started developing their own. As time passed, they started selling these applications not only to their own subsidiaries but also to other franchises of the automaker around different part of the world. In order to better deal with the whole process they decided to create an IS/ICT company, that provided IS/ICT services to the mother firm and to other enterprises. Now it is one of the firm's main sources of competitive advantage.
- Banking sector. There are several cases in different European countries in which Savings Banks have created organizations specifically dedicated to the management of their IS/ICT. Our idea is to explore some of these cases, of which we already have proof in Spain and in Italy.

4 METHODOLOGY

In both cases studied, the key to the research methodology was that one of the authors of this work was an agent in the process. This, obviously, introduces a certain bias into the investigation. This bias has been dealt with by having each of the possible conclusions drawn from each of the cases carefully analyzed by the other author, in order to avoid the mentioned bias. However, even with this is not absolutely possible to state that there is not a certain bias in the whole research, which is going to be further avoided by analyzing other cases.

Four types of techniques or data collections methods where used: participant observation, document retrieval, in-depth interviews and focus groups. Evidence obtained was qualitative as well as quantitative. The time frame considered starts at the creation of the enterprise and ends when the later

had been working for one year. This accounts for a total of 20 months for the case of the Spanish University and 36 months for the Italian SME. In both cases, the analysis took about three months and it started after the enterprise's first year of operation, except for some data that was collected as the process was happening, as explained below.

Participant observation and document retrieval was possible since, as has been stated previously, the authors of this work were part of the process. More than 50 hours were spent over the one year study period directly observing the help desk area in the case of the public University. In the case of the Italian SME, one of the authors was involved in the ERP implementation project and he spent three days per week taking part in the design, modelling and training sessions. Data was transcribed, structured and double checked by the authors to ensure accuracy.

Observation was supplemented with several in-depth interviews that were carried out with participants in the two processes. In total, more than 30 interviews were done. These interviews lasted typically around 75 minutes and used a semistructured questionnaire in which several issues were considered: satisfaction with the process and with the relations between the mother and the created firm, problems found at the beginning, what was expected to happen in the near future, etc.

In case 1, four focus groups were carried out. Two of them took place with the staff from the application development and user support areas of the university while the participants in the other two were their counterparts from the created enterprise. The objective of these focus groups was to analyze with the main actors in the process what their impressions of the process were, what their evaluation of the first year of work and suggestions on improvements for the following years.

Also in case 1, measures of the performance of the services delivered by the firm were obtained trough a survey carried out by the evaluation department of the university. In this survey, every service delivered by the university was evaluated: student registration process, IS/ICT services, campus services, transportation, etc.

5 FINDINGS

The study of the two cases has helped us identify and confirm empirically a number of features achieved by this internal mechanism use. First, the internal market allows a very good balance between the best of insourcing and the best of outsourcing. On the one hand, there is a good control over human resource practices and over technical decisions (i.e. which products to specialize in). On the other, a good level of control over the function being sourced is achieved, since it is no more a black box where the managers do not know what is going on, becoming a function that can be analyzed.

Second, in the process of subcontracting to the buffer organization, the mother organization learns how to organize contracts, which means to dimension properly prices, times and requirements as well as even the process of choosing which things to outsource and which not. This learning process can be very useful for a later process of outsourcing to markets directly. This is quite important, since many of the problems found with the outsourcing processes that take place in organizations could be solved by acquiring this experience. So the newly created organization really acts as a buffer between the mother firm and the market, becoming a learning experiment. Outsourcing is complex and, as was seen at the beginning of this paper, there are many possible flaws in the process, so going through and intermediate phase can help organizations to better outsource.

Analyzing the costs involved in the process, on the one hand the cost control and cost reduction that is usually followed by outsourcing processes is also achieved, as well as allowing for a good level of alignment between the objectives of both organizations. In this case, we can concrete that in the Spanish University case a savings of roughly 30% was achieved. But on the other hand it is true that, as will be seen later, the process of creating and launching a new organization entitles a series of costs that must not be undervalued.

Internal markets also ease the resistance to change in the workers of the mother organization, since the process is not a full outsourcing, which is always seen as more fearful, but a subcontracting to an organization which is quite close to the mother organization, and over which this later retains a certain level of control.

Finally, this mechanism allows for the implementation of human resource practices similar to those in the mother organization to take place, reducing resistance to change as well as problems derived from frictions between workers in similar job posts with very different contracts.

But the experience in the two mentioned cases has also shown that this is a very complex process and that there are several issues that have to be carefully dealt with. First of all, and since this kind of mechanism is not used very often, the process has to be carefully explained to all the involved workers. Even doing this, a certain resistance to change and certain fears will probably be found in workers, since they may not fully understand what is going to happen to them, specially in the long run. Basically, they can think the final objective is to pass their job posts to the buffer enterprise.

Related to this, workers of the mother enterprise may not fully understand the buffer organization is an independent organization, with its own managers that make their own decisions. This means that influencing human resource practices can be done only at a very high level, not at the base level.

Last, but not least, the buffer organization works best when it also provides service to third party companies (King and Malhotra, 2000), forcing it to compete with market rules to avoid falling in the small number (Ouchi, 1980) trap which would lead towards a bureaucracy again. The dilemma is that it is quite tricky to achieve a good balance between the quantity of effort dedicated to each kind of client, specially since the mother firm will control part of the board of directors and have shares in the created company, thus being able to influence its behaviour.

6 DISCUSSION

When and why should the internal markets mechanism be used? Basically, when the organization (the bureaucracy) and the market fail to deliver a consistent solution to organizations. This is, under certain conditions the traditional make-or-buy decision can provide what organizations need.

If the organization and its stakeholders are comfortable with an increase with the number of human resources that it dedicates to a function (being IS/ICT or any other), insourcing can be used. If the organization considers the task not nuclear, and has a number of service providers in the market around it that can deliver those services, outsourcing should be considered. The latter being done taking into consideration the dangers of outsourcing that have been warned by several authors and that have been explored previously in this article.

Also small enterprises will tend to prefer more classical solutions (i.e. outsourcing, insourcing and selective sourcing) before getting into the management complexity associated with internal markets and with strategic alliances.

But when none of the above happens, when organizations cannot o do not want to increase the number of internal human resources and when outsourcing is not advisable or desirable, new sourcing strategies have to be explored, since the make-or-buy poles do not provide a good enough solution for many organizations. These sourcing alternatives include strategic alliances and internal markets. When the company can find other firms that do not strategically compete with it and that have similar interests, the strategic alliance can be explored. If it wants, or it has, to follow this path on it own, then they will be facing an internal market strategy.

Our experience with two very different cases (different geographical regions, different sectors) show that, although the process of building a new enterprise has a high initial cost, the benefits that are achieved are quite rewarding: good control over the function, organizational learning and cost savings.

7 LIMITATIONS

As was stated previously, the authors of this paper have been part of the processes being studied, which introduces a certain bias intro the overall process and conclusions obtained. Although every statement has been double crossed by the authors and, when possible, all documentation has also been cross examined, this does not fully ensure that this bias has been eliminated. The authors expect that further research into other cases will allow removing this bias and better guarantee that conclusions can be generalized to a greater extent.

On the other hand, there has to be a consideration about how the selection of the cases that has leaded us to this paper was done. The selection was done, initially, just on the base of being two similar cases found by authors which came to write this paper together precisely because of having worked in similar cases in the past and having written about them. Due to this the paper is based on two very different cases. One is a public Spanish university, the other one an Italian SME. Two sectors involved, education and industry, more precisely iron and steel sector. The selection is not fully representative and was not done because of any other reason than those exposed above. This introduces some limitations in the extent to which conclusions can be extended.

8 CONCLUSION

We consider that these two cases prove that the use of the internal market mechanism trough buffer organizations allows enterprises to find a very interesting sourcing alternative, especially for their IS/ICT function, by providing a method that brings together the best of insourcing and of outsourcing. This is, we have proven in practice that the internal market approach is superior to outsourcing and insourcing, as was theoretically suggested by King and Malhotra (2000).

Can we guarantee that these results can be used in other sectors and in other countries? As was stated previously, in the limitations section of this paper, from the case selection it is obvious that there is no security that under different conditions and in different sectors, the conclusions can be used. But, on the other hand, it is true that common issues that have arisen in such different environments and that coincide in both cases so precisely can be reasonably expected to be found in other cases. However, further research to be developed will allow us to confirm this.

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